E.E.
S.V.
Pat Forgell

MEMORANDUM

To: John Bennett, Tom Castleberry, Tom Cleveland, Pino Francini, Bennett Katz, Bob Miller, Jim Partridge, Carl Pascarella, Joao Ribeiro da Fonseca, Roger Peirce, Chuck Russell, Jerry Schumacher, B. Ray Traweek

From: Bill Powar

Date: September 27, 1985

Subject: MASTERCARD CHIP CARD ACTIVITIES

On September 20, I attended a "product innovation" session hosted by MasterCard in New York. In addition to MasterCard staff (A. Schultheis, J. Cunningham, D. Chirls) also in attendance were:

Darold Hoops	-	Chemical Bank
Bob Berkowitz	-	Citicorp
Terry Flynn	-	Maryland National
Bob Kitchener	-	Casio Microcard
Paul Wittfield	-	Microcard Technologies
Dave Weber	-	PSI
George Warfel, Jr.	-	Teknekron

Also invited, but unable to attend were:

Helen Tepperman	-	Wells Fargo
John Boardman	-	Republic Bank (Dallas)
John Tokesan	-	MCorp

According to MasterCard, this group was to be part of an overall effort directed at taking the chip card from its current status in the U.S. as a laboratory item to full implementation. This group would address consumers marketing issues and a second group would address technical issues. Overall coordination of the chip card development would fall to an industry steering committee with representatives from Visa, MasterCard, American Express, Bell Labs, Japanese chip card developers (Mr. Ieki of NTT), Intelmatic and other industry "experts" such as Jerry Svigals. This steering committee will "assist MasterCard" (sic) in developing an implementation plan for conversion of all cards to chip cards.

The purpose of the group that met on the 20th was to develop a set of concept statements related to chip card product applications which would be reviewed with broader cross-sections of banking industry later this year. MasterCard is considering consumer market testing of them as well for early 1986. Chip card efforts to date have focused on technical or operational capabilities related to reducing today's operating costs and charge-offs. This effort, it is hoped, will focus on consumer or merchant marketing issues. The meeting resulted in a "blue sky" list of 50-60 possible applications with about 5 or 6 of them being developed in a little further detail. Schultheis said we would be getting a set of meeting output and I will follow-up with him in Chicago next week.

MasterCard's Columbia, Maryland and West Palm Beach, Florida tests, scheduled to start yesterday (9/26) will consist of 20-25,000 cards usable at 200 merchants in each market. MicroCard is being used in Maryland and Casio in Florida. The first wave of card mailings began last week but they do not expect significant card usage for 60-90 days. Obviously, they will make a big deal of this at the ABA.

A.D. Little is performing technical tests (number of machine reads, flex tests, heat/cold, corrosion etc.). Three security tests are being done. ADL staff is trying to break the chip's security, simulating an "inside job" of somebody will full knowledge of the system. Teknekron is getting some knowledgeable lobbyists and outside technicians to act as "hackers" in trying to break the system and both the NSA and FBI have agreed to perform independent public sector evaluations.

The system is designed to be very flexible, with a very standard chip reading terminal. Specific applications are initiated through a second card that is plugged into the terminal. Different cards would be used to create an in-bank terminal, a merchant POS terminal or a customer initiation terminal. The terminals can be used either off-line or on-line. The card is verified and the cardholder's PIN is verified in the chip. The terminal provides prompting to both the cardholder and the clerk. No "stored value" usages are included in the pilot although the chip will keep memo-posted balances.

If the invalid PIN entries are made, the chip function is "locked". It can be "unlocked" at special in-bank terminals. The card will also lock after its expiration date (although they did not describe how the actual date would be checked against the expiration date programmed into the chip). If an on-line authorization results in a "pick-up" response, the chip features of the card are totally disabled, but the embossing and magnetic stripe would still be usable.

I believe that within much of Allan Schultheis' description of what MasterCard plans to do is a desire to go to their board early next year with a commitment to convert to chip cards and a full transaction plan with the statement that "it was developed in conjunction with an industry-wide panel of experts including people from member banks, Visa and American Express".

Just before the meeting broke, Darold Hoops said he was concerned that banking would be opening up the payment system to its competitors if it were to convert to this technology. He felt that banks, given today's geographical and product deregulation, would not be able to focus on the technology's marketing capabilities as quickly as certain non-banks could. He was particularly concerned that by moving quickly to convert existing bank cards, and install compatible terminals, justified purely on cost-savings (charge-offs and communication costs) which could be attained through other means (like extending use of the magnetic stripe), the industry would be making the investment in an infrastructure that would allow non-banks to take banking business away from the banks.

I believe this caution is justified. Bob Berkowitz (of Citicorp) said the same thing privately to me. This is, I believe, a possible "hot button" that we could press with the Membership if we want to use it.

WLP:lt

cc: Phil Skarston